

Remarks

Claims 17 and 18 were rejected under 35 U.S.C. 112, second paragraph.

Applicant has amended Claims 1 and 17 to overcome this rejection. Claim 1 requires two separate elements: (1) two seals, one at each end of the tube, so that each end of the tube is sealed, and (2) one or two openings along the length of said tube through which water can be admitted into the tube. These openings may be left open or they may be sealed when water is not being admitted into the tube (paragraph [0017], lines 4 to 7). Applicant believes that the language of the claims is now clear, but Applicant is amendable to suggestions from the Examiner if she believes that further clarification is necessary.

Claims 1 to 3, 6 to 11, and 16 were rejected under 35 U.S.C. 103(a) as unpatentable over Ball. Applicant has amended his claims to better distinguish over Ball. All of Applicant's claims now require that no surface on the inside of the tube contacts a surface on the opposing side of the tube except for the two seals about 2 to about 6 inches from the ends of the tube. In Ball's tube, on the other hand, the inside surfaces of the tube must touch at multiple seams 18 in order to form multiple "vertically extending reservoirs 22." (Column 4, lines 4 to 7.) Ball must have these multiple seams because that is what holds his tube in a vertical position. Ball is trying to "provide maximum protection for the plant from wind and like damage ... " (column 2, lines 25 to 28) and the way he does this is by making his tube as high and thin as possible. Note column 2, lines 3 to 5, where Ball states, "the height of the body being

very much greater than the width of the body and being less than its length." That is why Ball has gone to the trouble of forming multiple seams 18; those seams prevent the opposing sides of the tube from separating. If Ball did not have those seams, the height of his device would not be "very much greater" than his width.

Applicant, on the other hand, has other concerns. Applicant believes that a greater threat to the plant than the wind is the compaction of the soil around the plant that will occur if the weight of all the water in the tube is concentrated on a small area. The area at the base of Ball's tube is small compared to the area at the bottom of Applicant's tube. This is readily apparent by comparing Figure 2 of Ball, which is a plan view of his tube, with Applicant's Figure 4, which is a side view of Applicant's tube. Because Applicant's tube has no seams (except for the seals at the ends) Applicant's tube collapses under the weight of the water within it. The portion of Applicant's tube that is in contact with the ground (see Figure 4) is huge compared with the portion of Ball's tube that is in contact with the ground. If both tubes contain the same amount of water, then the pounds per square inch of pressure on the ground is far greater for Ball's tube than for Applicant's tube. The much greater pressure of Ball's tube will compact the soil around the plant and will impair the growth of its roots. Applicant's invention avoids that problem by permitting the tube to spread out under the weight of the water within it, so that the pounds per square inch of force from the tube against the ground is small. All of Applicant's claims now require the tube to be wider than it is high when it is filled with water. Not only is the opposite true of Ball's tube (Figure 2) but Ball

would not want it to be true of his tube because Ball wants the tube to be high to form a wind barrier; Ball expressly teaches against having the width exceed the height. (See column 2, lines 3 to 5, quoted hereinabove.) An invention that the prior art teaches against cannot be obvious.

All of Applicant's claims further require means for attaching stakes to the flaps that are formed at the ends of the tubes. This is an important part of Applicant's invention because, since Applicant's tube spreads out under the weight of the water, Applicant must have some way of keeping the opening where the water is put into the tube above the level of the water in the rest of the tube. This Applicant does by means of stakes that are attached to the flaps. These stakes hold the ends of the tube higher than the rest of the tube. Applicant locates the openings into his tube near the seals at the ends, so that the openings are higher than the rest of the tube, as shown in Figure 1.

Referring now to Figure 5 of Ball, this drawing clearly shows that while stakes 23 are attached to flaps at the ends of Ball's tube, the flaps do not hold those ends higher than the rest of Ball's tube. Indeed, in the Ball's Figure 5, it looks like the ends of Ball's tube are beveled and are actually lower than the rest of his tube. Ball uses multiple seams 18 to keep his tube upright so that the top of his tube is level, as shown in Figure 5. Thus, when a little water level drains out of Ball's tube, there will be an air space at the top of the tube and water still inside the tube will not come out of the opening.

But Applicant's tube does not have these multiple seams and Applicant's claims

expressly excludes them because the sides of Applicant's tube contact each other only at the two seals. Because Applicant's tube spreads out under the weight of the water within it, the top of the tube will be in contact with the top of the water inside the tube. See Figure 4 where water level 4 is higher than the top of the tube. If Applicant did not hold his openings higher than the rest of his tube, water would easily come out of the openings. That is why all of Applicant's claims require the stakes to hold the flaps higher than the rest of the tube and why all of Applicant's claims require the opening to be near to the seals where the tube is higher. There is no need for Ball to hold the ends of his tube higher, and he does not do it, and there is no need for Ball to locate his openings near the ends of the tube and he does not teach doing this either. Thus, this is another aspect of Applicant's claimed invention that is not obvious over Ball.

Furthermore, Applicant's invention is already a commercial success. About 12,000 units of Applicant's claimed watering tube are already in use watering trees. Feedback from the purchasers of these tubes has been positive and rapid growth in sales is expected. In fact, Applicant has now invested in "in-house" manufacturing facilities so that he can make his product himself. The Examiner is invited to visit Applicant's web site at www.oozetube.com to see pictures of this product in use and offered for sale. The great commercial success of this product is good evidence that Applicant's invention is not obvious.

Claim 4 was rejected under 35 U.S.C. 103(a) as unpatentable over Ball in view of VandenHeuvel. Ball has been discussed. BandenHeuvel was cited to show a zipper

lock. Applicant does not agree that it would have been obvious to use a zipper lock on Ball's tube. Note that Ball does not even manufacture an opening on his tube. Instead, he slits the tube to form aperture 12 (column 4, lines 25 to 26), perhaps with a knife. Why would he do that? The answer is that his seams hold his tube in an upright position so the water will not come out of the tube. As water drains out of the tube an air pocket is left at the top so the opening does not contact the water level. It is not obvious to go to the extra trouble and expense of providing a zipper lock in Ball as Ball's slit is just large enough for a hose or nozzle and little contamination will enter the tube through the slit.

Claims 5, 12, 17, 18, 19 and 20 were rejected under 35 U.S.C. 103(a) as obvious over Ball in view of Craig. Ball has been discussed. Craig is cited to show a removable cap. For the reasons given in the previous paragraph, Applicant does not agree that it would have been obvious to use a removable cap on Ball's tube. Also, Craig shows the watertight seal in a horizontal position (parallel to the surface of the earth).

As to Claim 17, there is no suggestion in Ball or Craig of a need for multiple openings in the top of the tube. Applicant uses two openings so that the air can escape as water enters the tube, but neither reference suggests that trapped air is a problem. Indeed, Ball would want trapped air so that his slit is not in contact with water inside his tube. Adding an additional opening to release the air, which would also complicate manufacturing, is therefore not obvious.

As to Claims 18 and 19, Applicant has provided criticality to having the opening

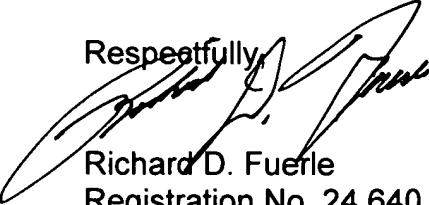
near the seals. That location is where the tube is the higher (paragraph [0017], line 1) and Applicant's invention ensures that that will be the higher by attaching stakes to the flaps to hold the ends of the tube higher. Ball does not hold the ends of his tube higher. This is not "merely a shift in location of a known element performing the same intended function." Applicant's openings will not perform the same function if they are not at the ends of his tube because Applicant's tube spreads out under the weight of the water inside, so openings at the middle would be at or below water level (Figure 4) and likely to leak.

As to Claim 20, Applicant has amended his claims to clarify what is meant by the word "slits" as applied to his flaps. The claims now require the slits to extend part of the way across the flaps. That language is believed to distinguish over Ball, who has openings at the ends of his flaps and discloses no slits that extend part of the way across his flaps for the insertion of stakes.

Claims 13 to 15 were rejected under 35 U.S.C. 103(a) as unpatentable over Ball in view of Reiger. Ball shows flaps only in Figure 5, and discloses no way that those flaps can be joined together. In Figure 5, two tubes would not be joined at the flaps, but would simply be lined up end-to-end, with a stake in the flap at the end of each tube. Claims 13 to 15 have been amended to better distinguish over this prior art.

All of the claims are now believed to be allowable over the references cited and reconsideration and allowance of all of the claims are therefore requested. The Examiner is invited to call Applicant's attorney at (716) 774-0091 to resolve any

remaining problems.

Respectfully,

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